REMARKS/ARGUMENTS

Re-examination and favorable reconsideration in light of the above amendments and the following comments are respectfully requested.

Claims 11 and 13 - 24 are pending in the application. Currently, all claims stand rejected.

By the present amendment, claims 11 and 18 have been amended and new claims 25 and 26 have been added to the application.

In the office action mailed September 23, 2008, claims 11, 13 - 15 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,402,750 to Atkinson; claims 11, 13 - 15, 18, 23, and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0220643 to Ferree in view of U.S. Patent No. 5,180,393 to Commarmond; claims 16, 17, 19 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ferree in view of Commarmond and further in view of U.S. Patent Publication No. 2002/0173791 to Howland; and claims 21 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ferree in view of Commarmond and further in view of U.S. Patent Publication No. 2001/0012937 to Schaffler-Wachter.

The foregoing rejections are traversed by the instant response.

Independent claim 11 is directed to a linking element for a spinal fixation system designed to link at least two implantable connecting assemblies. The linking element comprises at least partly of a support made of polymer material and a rod substantially coaxial with said support, a spring being formed of a plurality of turns surrounding the rod and being at least coextensive in length with said support, said support being cylindrical or tubular in shape and having an inner diameter, said turns having an inner diameter which forms a cylindrical space in which said rod is positioned and an external diameter which is greater than said inner diameter of said support resulting in said turns being at least partly embedded in said polymer material of said support.

Independent claim 18 is directed to a spinal fixation system comprising at least two implantable connecting assemblies linked by at least one linking element having the same structure as the linking element of claim 11. Claim 18 however says that the turns have an inner diameter which forms a cylindrical space in which said rod is positioned nad an external diameter which is greater than said inner diameter of said support resulting in said turns being at least partly enclosed in the polymer material of said support.

The rejection of claims 11 and 18 on obviousness grounds over Atkinson is defective for a number of reasons. First, the

Examiner has failed to provide a *Graham v. John Deere* analysis. There is no discussion of the differences between the claimed invention and what is disclosed in Atkinson. Second, the Examiner has not presented any articulated reason having a rational underpinning which would lead one to the legal conclusion of obviousness. Third, the Examiner misinterprets what is shown in Fig. 10C. The Examiner misinterprets the elastomeric bumper pad 117 shown in the Figure to be a rod. Further, the Examiner fails to recognize that there is no disclosure in Atkinson that the alleged support 111 is not formed from a polymer material. Still further, there is no disclosure that the spring 113 has any turns which are at least partly embedded or enclosed in the polymer material of the spring. In Atkinson, one would not want to have such an arrangement because the spring 113 would then be unable to move/be compressed when the piston 112 is drawn into the barrel 111. For these reasons, the rejection of claims 11 and 18 based upon Atkinson should be withdrawn.

Claims 13 - 15 are allowable over Atkinson for the same reasons as claim 11 as well as on their own accord.

With respect to the rejection of claims 11 and 18 based upon Ferree and Commarmond, Applicant offers the following comments. As noted in Applicant's previous response, a review of the Ferree publication shows that it fails to disclose or

suggest the structure set forth in claim 11 for the linking element. The Examiner contends that Ferree discloses a device comprising a support made from a polymer material and a helical spring positioned substantially coaxial with the support. The rejection is defective in that the Examiner has not clearly identified what structure in Ferree forms the support. The Examiner goes on to contend that the support is cylindrical in shape and defines an infinite number of diameters. This contention seems to be without merit since there is nothing in Ferree which says that any support has an infinite number of diameters. The Examiner contends that the spring is formed from a plurality of turns defining an outer diameter and an inner diameter wherein the outer diameter is smaller than one of the inner diameters of the support. There is no disclosure in Ferree of such a diameter relationship. In fact, if the support is sleeve 610 or 612, there is no disclosure that the sleeve has any inner diameter at all. On this point, the Examiner is specifically requested to point out where Ferree says that the slleve 610 or 612 has an inner diameter. The sleeve can be nothing more than a material which encapsulates the spring. As for the Examiner's contention that the spring is embedded (surround tightly or firmly) by the support, this is nothing more than the Examiner's speculative conjecture of what is shown by Figure 6C - a Figure which the Examiner must admit is not

drawn to scale. There is no disclosure in Ferree of the spring being at least partly embedded in the material forming the sleeve. Since there is no disclosure of the inner diameter of the support, it can not be assumed that Ferree has a spring whose turns have an external diameter greater than the inner diameter of the support so that they are at least partly embedded in the support. It should be understood that the sleeves in 610 and 612 are placed over the springs (see page 2, paragraph 29, lines 7 - 9). When one places the sleeves over the springs, this means that the springs are not embedded in the sleeve even partly. The Examiner's position also is not consistent with what is being shown in Fig. 6D, which is a view of an embodiment of the invention drawn in Fig. 6C when the spine is subject to movement. As can be seen from this figure, the spring extends partially outside of the cylinder/sleeve 610. In order for this to occur, the spring must slide inside the cylinder/sleeve 610. Such a movement could not be achieved if the turns of the spring are embedded in the walls of the sleeve, even partially. Thus, if Ferree were to have the claimed spring/support relationship, it would not function for its intended purpose.

The conclusion of obviousness must be based on facts. An obviousness rejection may not be based on speculation or mere possibilities or probabilities. An obviousness rejection must be based on sufficient detail to show that the reference was in possession of the claimed structure. The Examiner has failed to properly interpret the disclosure and the teachings of Ferree.

Still further, Ferree does not disclose or suggest in the embodiment shown in FIG. 6(c), a first rod substantially coaxial with the support, which first rod is surrounded by the turns of the second rod. Still further, the springs do not surround any structure which could be called a rod.

With respect to Commarmond, it does not cure the aforenoted deficiencies of Ferree. Most notably, Commarmond does not teach or suggest at least partly embedding the spring in a polymer support. Commarmond discloses an artificial ligament consisting of a longitudinal primary winding (20) arranged between the narrowed areas (5) and (15) of two successive eyelets (1, 10). The longitudinal primary winding (20) is covered by a transverse secondary winding (25) arranged in contiguous spirals around the longitudinal primary winding (20). The longitudinal primary winding (20) confers rigidity upon the assembly during traction. In contrast, the transverse secondary winding (25) acts as a wedge and gives the ligament stiffness during compression. The

artificial ligament is arranged between each lumbar vertebra and the sacrum.

It is submitted that the Commarmond artificial ligament is for an entirely different purpose than the Ferree device which is directed to a device for preventing spinal extension. The Ferree device is designed to inhibit full extension; whereas, the Commarmond device is designed to have a flexibility preserving pedicle fixation combined with a stiffness during traction and during compression, limiting the kyphosis/lordosis between two vertebrae, and consequently, the shearing of the discs. There is absolutely no reason why Ferree would want to have a secondary winding which acts a wedge and provides stiffness during compression.

With regard to the Examiner's comment above providing Ferree with a rod, it is not possible to do that without destroying Ferree for its intended purpose. It should not go unnoted that the springs in Ferree have only a limited number of turns and solid end portions without turns that fit into the pedicle screws 604. See Figs. 6A and 6B. There is no way to incorporate the rods into the spring structure of Ferree because of these solid ends and still maintain the functionality of Commarmond and the functionality of Ferree.

Thus, there is no reason to combine the references in the manner suggested by the Examiner. The mere fact that a

structure is disclosed in the prior art is not sufficient basis to find obviousness. The Examiner must provide an articulated reason having a rational underpinning which would lead one to the legal conclusion of obviousness. Since the Examiner has not addressed the foregoing issues in his conclusory statement of obviousness, the Examiner has not provided the necessary articulated reason having the necessary rational underpinning.

For the reasons previously stated, even if the references were properly combinable, they would not meet all of the limitations of independent claims 11 and 18.

For these reasons, claims 11 and 18 are allowable over the cited and applied references.

Claims 13 - 15, 23 and 24 are allowable for the same reasons as their parent claims as well as on their own accord.

With respect to the rejections of claims 16, 17, 19, and 20 - 22, the tertiary references to Howland and Schaffler-Wachter do not cure the aforenoted deficiencies of Ferree and Commarmond. Thus, these claims are allowable for the same reasons as their parent claim(s) as well as on their own accord.

New claims 25 and 26 are allowable for the same reasons as their parent claims as well as on their own accord. None of the cited and applied references teach or suggest a rod which is at least coextensive with said support and a spring which is at least coextensive with said support.

The instant application is believed to be in condition for allowance. Such allowance is respectfully solicited.

Should the Examiner believe an additional amendment is needed to place the case in condition for allowance, he is hereby invited to contact Applicant's attorney at the telephone number listed below.

A request for a three month extension of time is enclosed herewith. The Director is hereby authorized to charge the three month extension of time fee in the amount of $1,110.00 to Deposit Account No. 02-0184.

Should the Director determine that an additional fee is due, he is hereby authorized to charge said fee to said Deposit Account No. 02-0184.

Respectfully submitted,

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